

junction of a penny, or even a halfpenny, candle, during the transit of trains at night, was denied to a carriage in which he was a passenger, amongst upwards of forty other persons of both sexes, paying, in all, at least 16s. 3s. 4d. to the Company (the South-Eastern), who, he was coolly assured, while complaining of the inconvenience, disrespect, and moral impropriety, of the thing, nevertheless really 'could not afford it!' He, at the same time, but quite as ineffectually, urged the risk, which all run, of being roasted alive by the firing of the combustible female dresses from the flicker of an unprotected candle, provided by one of the passengers,—richer or more generous than the company collected together under the auspices of the other 'Parliamentary Act,'—for behoof of all, and placed upon the floor for want of a more proper or safe receptacle. If the object of railway companies be to disgust the poorer classes, and prevent them from presumptuously riding by rail at all, by such a disregard of the comfort, the safety, the life, or even the common decencies of the humbler classes, we could help them to a much more effectual scheme than that—a scheme which was once most effectually adopted in the evacuation of certain 'classes' by a chemical professor in the modern Athens, we remember, on occasions when the occupants were induced to remain in the voluptuous enjoyment of cheap but fascinating odours elicited in the course of the professor's experiments in organic chemistry,—and which, by the way, we would recommend as attractive towards first-class carriages, whilst the professor's succedaneum—sulphuretted hydrogen—would be found in practice a much more expeditious evacuator of the classes of inferior or less desirable grades than the mere negative, darkness, and against which, we will venture to say, the 'Act' no more specially provides than against the darkness itself.—The 'Oxford, Worcester, and Wolverhampton' bridge across the Stour, at Stourbridge,—the Stour bridge of the new order of things, in short,—is about to be commenced, and will be one of the 'stupendous' structures of the railway era, as the line is to be carried across the valley at an elevation of ninety feet: the embankment and bridge will be nearly a quarter of a mile in length.—The architect of the South-Western has been instructed to design a 'superb refreshment-room' at Southampton, and other alterations, the cost of which will be 5,000*l*.—The completion of the permanent way of forty miles of the Caledonian line from Carlisle to Beattock, was lately announced, and it was believed, on the part of both engineers and contractors, that every difficulty had been overcome, and that the line would be ready for public use in a day or two, without let or hindrance. The embankment at Moss-bank, however [whose 'foundation is a spongy and unsettled morass'], played them false; for, ere noon, it slipped, or sank down, to the extent of some six or seven feet. About a hundred men were immediately set to work to repair it, and before the evening they had restored one set of rails; but, in spite of every exertion, as new material was brought upon it, it gave way in the evening, and it was only by a succession of relays during the whole night that it was rendered passable for the engine which was expected to bear the inspector over it on Wednesday. Under these circumstances, it was considered advisable to delay the formal inspection till Saturday, when it is expected the embankment, which has hitherto proved so treacherous, will have fairly settled down."—This untoward intelligence, following directly on the heels of an almost equally recent detail of the enormous quantities of heavy materials thrown into the gulph, just affords a reiterated justification of what has been so repeatedly noted in *THE BUILDER*, though still declared to be 'an accident which no human foresight can prevent.' Sufficient experience surely has been acquired at Chat Moss, Stowmarket, and elsewhere, to be now turned to some better account by men of ability and ingenuity, than to the mere denunciation of the weakness or insufficiency of 'human foresight.' Notwithstanding these evidences of possible future risk unless the restoration has been carried out efficiently on the principle already so well established elsewhere, we observe a subsequent announcement of the opening for public traffic on the 10th instant throughout, from Carlisle to Beattock, and of course across this same

embankment, which, as a portion of the forty miles, was declared by the engineers, previous to its subsidence, to be 'now completely in thoroughly good condition.' Surely a little more time should be allowed for contingencies such as those that have already occurred. The opening of the remainder of the main line from Beattock to the junction with the Wishaw and Coltness Railway depends only on the finishing of 20,000, out of the 430,000 cubic yards of summit cuttings, which, though all rock, will be accomplished, it is calculated, in about two months. Most of the mason works are completed, or nearly so.—The bridges on the Cumnock branch of the Ayrshire line, at Kilmarnock and Irvine (one of twenty-four and the other of seven arches), contracted for by Messrs. King and Sands, are in an advanced state.—MM. Fournel and Fisher, engineers of the Northern (continental) Railway, have been condemned by the Correctional Police, to pay each 1,000*fr*. fine for each of two contraventions of the law committed in allowing three new locomotives to be run on the line, without having been previously examined and tested, and two others to be used without being furnished with steam-gauges. The Company were also condemned to a conjoint responsibility for the fines.—Our Metropolitan Telegraph Company have announced the opening, during the ensuing three months, of the commercial and general system of telegraphic communication between their central station in Lothbury, now rapidly approaching completion, and fifty of the principal towns in England, a list of which, pretty much the same, we think, with that already given in *THE BUILDER*, the Company have now published by advertisement. On Saturday last the conducting pipes opening the communication with all places south of the metropolis were being laid in King William-street and Princes-street.

THE USE OF LEAD PIPES AND CISTERNS.

SIR,—But for your able and proper reply to "Vox" (p. 412, *ante*), his letter might have had an injurious effect, by blinding the public against important facts, or, at least, in preventing public attention being directed to the subject in question, which has been found absolutely necessary in many parts of England.

Should "Vox" be in doubt as to the corrosion of lead, and the solubility of corrosive matter formed by free carbonic acid, atmospheric oxygen, &c., I shall be happy to give ample proof.

It is an erroneous opinion that lead has been used for centuries without causing any deleterious impregnation of water. I would ask, if necessary investigations have been made in all parts of the country? and, if the origin of every disease has been discovered? How many have fallen an early sacrifice after a long and painful illness, without the cause having been known?

There is less danger in drinking water when kept in leaden tanks, than when it has passed through pipes, because the gases which usually form the most soluble corrosive matter are confined within the pipe, whereas, in open cisterns, the gas is more liable to escape. I have found carbonic acid in water which corroded lead rapidly, when corked up in a bottle or confined in a pipe (the pipe leading from the pump to the well is of course always full of water), but when a slip of lead is introduced into a glass of the same water, the metal is scarcely acted upon, owing to the gas escaping. When hydrochloric acid is contained in water, which I have lately discovered in several localities, the lead is acted upon with great energy in open vessels, and the water is strongly impregnated with the chloride of lead.

Six years' daily experience enables me to speak with confidence on the subject; but I by no means wish to cause any unnecessary alarm; there are, however, many persons besides myself who have found that precaution is absolutely necessary for the preservation of health.

I examined some water a few months since, which contained lead in solution, and the pipe had been laid down about fifteen years; but notwithstanding that the solid contents contained in a pint of the water amounted to ten grains,

* The mode of detecting the presence of this acid in water, I published in the *Pharmaceutical Times*, last May.

and were composed of chlorides and sulphates, they afforded no protection by forming an insoluble crust, otherwise the lead would not have been found in solution.

It is generally believed that Roman cement will not adhere to lead; but I am informed by a gentleman that he had a leaden tank covered with a thin coating of good cement about three years since, which is perfect to this day. If this simple plan were to be generally adopted, no risk, as regards the tanks, would be incurred: an occasional inspection, in order to see that the cement had not chipped off, is all that would be required.—I am, Sir, &c.,

H. V. OSBORN.

Southampton, Sept. 3rd, 1847.

NOTES IN THE PROVINCES.

A 'Gas, Water, and Sewerage,' Committee has been appointed at Hadleigh, for the supply of the town 'under one system of management.'

—Lakenham church has been re-opened after a thorough cleansing, painting, and repair.

—From the accounts of the Southampton Commissioners for paving, lighting, and improving the town, it appears that during the past year a sum of 10,280*l*. odd has been expended on the extension, and repair, &c., of sewers; 918*l*. odd also, including 190*l*. of salaries, have been expended on the maintenance and cleansing of the streets, roads, and highways, and in lighting, &c., 523*l*. odd.

The church of Kingston Deverill, Wilts, recently rebuilt in the early decorated style of end of 13th century, by the Lougheat family, from designs by Messrs. G. P. Manners and Gill, of Bath, Architects, was consecrated on Tuesday week.—The restoration of Othry church, near Bridgewater, is so far completed, that it is intended shortly to re-open it. Much further repairs are still required did the funds permit.—St. Peter's church, Cheltenham, the erection of which, for the accommodation of the populous districts of the Tewkesbury-road, has been so long talked of, has been at length commenced. The first stone was to be laid on Monday week by Sir W. Jones.—St. Mark's Church, Tewkesbury-road, erected, from designs by Mr. F. Niblett, architect, since 26th March last, when the foundation-stone was laid, was consecrated on Tuesday week.

It is a plain and simple edifice, in the early English style, with a nave 67 feet by 18 feet; two aisles, 56 feet by 12 feet each; and a chancel, 24 feet by 16 feet; a high-pitched open roof and tall lancet-shaped windows, the east one filled with painted glass. A tower 112 feet high springs from the south-west corner of the nave. The seats are open and free.

—Something like an honourable recognition of the services of a professional man was made the other day at Cheltenham, where a new road was inaugurated by a 'master of the ceremonies' with a 'libation of wine,' under the name of the surveyor, Mr. C. Hale, who had formed it.—The new town hall at Dudley is so far completed that the petty sessions were to be held in it on Monday last.—The new Church at Cookley, near Kidderminster, is to be erected, it is said, from the designs of Mr. Perkins, architect, of Worcester. The edifice is intended to be in the decorated style of architecture, and to accommodate 400 persons, without galleries.

THE BRONZE STATUE OF SIR EDWARD BARNES, late Lieutenant-General, and Governor of Ceylon, was inaugurated at Colombo on 25th June last. From an article in the *Colombo Examiner* on the subject of road-making in Ceylon, it may be inferred that his efforts to form good roads have been of great service, and are worthy of being imitated by his successors. He is said to have thus laid the foundation of the prosperity of Ceylon, and to have changed the island from a military garrison to a large exporting and importing colony.

ANCIENT CARTHAGE.—The *Journal des Débats* announces the discovery, at Tunis, on the 14th ult., of an object most interesting to all artists and antiquaries. Some workmen employed to quarry stone near the inner harbour of ancient Carthage, discovered, about 30 feet underground, a colossal bust, in marble, representing a figure of Juno, so wonderfully well preserved as to have the appearance of having been sculptured only the day previous.